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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,362	05/15/2001	David G. Frank	9351-046	1286

7590

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EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 07/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/854,362

Applicant(s)

Frank et al.

Examiner

Angela J. Martin

Art Unit

1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 2, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 58 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 22, and 58 is/are rejected.
- 7) ☒ Claim(s) 5-21 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5, 8 6) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election of Group I, claims 1-22 and 58 in Paper No.10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 © of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1-4, 22, and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmid et al., U.S. Pat. No. 6,080,503.

Rejection of claims 1-4 and 22 drawn to a fuel cell assembly; claim 58 drawn to an electrochemical cell assembly.

Schmid et al., teach a fuel cell assembly comprising a plurality of separate elements (abstract), at least one groove network element extending through the fuel cell assembly (col. 8, lines 21-32), wherein the seal provides a barrier between at least two of the elements to define a chamber for a fluid for operation of the fuel cell (col. 5, lines 1-6). The disclosure of “dispensing...and injection molding” of the sealant (col. 5, lines 47-50) is considered to encompass “including at least one filling port for the groove network” and “a seal within each groove network that has been formed in place after assembly of the separate elements” since injection molding would require a filling port to inject the sealant into the structure and injection molding of the sealant would fill in the grooves after assembly of the elements. Additionally, Schmid et al., teach the groove network comprises a plurality of closed groove segments, each of which comprises at least a groove segment in one of the separate elements that faces and is closed by another of the separate elements, to form the closed groove segments (Fig. 4b); and it teaches the fuel cell assembly comprises a plurality of individual fuel cells (stack) (abstract). It also teaches at least some of the closed groove segments each comprise a first groove segment in one of the separate elements facing a second groove segment in another of the separate elements (Fig. 3c). In addition, it teaches a fuel cell assembly including an at least one fuel cell and, on one side, a

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seal molded in place to abut the other side of another, similar assembly to form a chamber for coolant, whereby a plurality of assemblies can be assembled to form a large fuel cell unit assembly with coolant chambers formed between adjacent fuel cell assemblies (col. 4, lines 59-67 and col. 5, lines 1-12). Schmid et al., teach an electrochemical cell assembly comprising a plurality of separate elements (abstract), at least one groove network extending through the assembly (col. 8, lines 21-32), and a seal within each groove network, wherein the seal defines a barrier between at least two elements to define a chamber for a fluid for operation of the assembly (col. 5, lines 1-6). The disclosure of “dispensing...and injection molding” of the sealant (col. 5, lines 47-50) is considered to encompass “including at least one filling port for the groove network” and “a seal within each groove network that has been formed in place after assembly of the separate elements” since injection molding would require a filling port to inject the sealant into the structure and injection molding of the sealant would fill in the grooves after assembly of the elements.

Thus, the claims are anticipated.

*Allowable Subject Matter*

4. Claims 5-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

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In claim 5, the Applicant claims a fuel cell assembly as described above, wherein each separate element includes a connection aperture, whereby the apertures form a connection duct of the groove network extending through each fuel cell, and wherein the ducts of individual fuel cells are interconnected and are connected to the at least one filling port, whereby the network extends through a plurality of fuel cells to enable a seal for all of the fuel cells to be formed substantially simultaneously. Claims 6-19 are dependent, directly or indirectly, on objected claim 5. In claim 20, the Applicant claims a fuel cell assembly as described above, which includes an external sealing layer formed around the exterior of the fuel cell assembly and formed from the same material as the seal within each groove network, wherein connections are provided between each network and the exterior of the assembly and the external sealing layer and seal within each groove network have been formed in place simultaneously. Claim 21 is dependent on objected claim 20.

The prior art of record does not disclose each separate element includes a connection aperture, whereby the apertures form a connection duct of the groove network extending through each fuel cell, and wherein the ducts of individual fuel cells are interconnected and are connected to the at least one filling port, whereby the network extends through a plurality of fuel cells to enable a seal for all of the fuel cells to be formed substantially simultaneously. In addition, the prior art of record does not suggest an external sealing layer formed around the exterior of the fuel cell assembly and formed from the same material as the seal within each groove network, wherein connections are provided between each network and the exterior of the assembly and the

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external sealing layer and seal within each groove network have been formed in place simultaneously.

*Examiner Correspondence*

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Angela J. Martin whose telephone number is (703) 305-0586. The Examiner can normally be reached on Monday - Friday from 8:00am to 4:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Patrick Ryan, can be reached at (703) 308-2383.

In order to transmit an official fax/non-final, the number is (703) 872-9310. In order to transmit an official fax/after final, the number is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

AJM

A handwritten signature in black ink, appearing to read "Angela J. Martin". The signature is written in a cursive, flowing style.